

## SEQUENCE LISTING

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TECH CENTER 1600/2900

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Tsai, Chung-Jui  
Hu, Wen-Jing

<120> GENETIC ENGINEERING OF LIGNIN BIOSYNTHESIS IN PLANTS

<130> 66040-9651

<140> 09/530,663

<141> 2000-07-11

<150> PCT/US98/24138

<151> 1998-11-12

<150> 08/969,046

<151> 1997-11-12

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<212> DNA

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Val Leu Glu Asn Leu Ser Lys His Ser Ser Lys Pro Cys Leu Ile Asn	
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Val Ile Met Leu Phe Leu Pro Ser Ser Pro Glu Phe Val Leu Ala Phe	



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Ala Glu Met Lys Ile Val Asp Pro Glu Thr Gly Val Ser Leu Pro Arg	
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Trp Leu His Thr Gly Asp Ile Gly Tyr Ile Asp Asp Asp Asp Glu Leu	
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Phe Ile Val Asp Arg Leu Lys Glu Leu Ile Lys Tyr Lys Gly Phe Gln	
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Lys Arg Val Phe Phe Ile Glu Ala Ile Pro Lys Ala Pro Ser Gly Lys	
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Ile Leu Arg Lys Asn Leu Lys Glu Lys Leu Pro Gly Ile	
525 530 535	

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Lys His Ser Ser Lys Pro Cys Leu Ile Asn Gly Ala Asn Gly Asp Val
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Tyr Thr Tyr Ala Asp Val Glu Leu Thr Ala Arg Arg Val Ala Ser Gly
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65     70     75     80
Pro Ser Ser Pro Glu Phe Val Leu Ala Phe Leu Gly Ala Ser His Arg
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Gly Ala Met Ile Thr Ala Ala Asn Pro Phe Ser Thr Pro Ala Glu Leu
100    105    110
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115    120    125
Cys Tyr Tyr Glu Lys Val Lys Asp Phe Ala Arg Glu Ser Asp Val Lys
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Val Met Cys Val Asp Ser Ala Pro Asp Gly Ala Ser Leu Phe Arg Ala
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His Thr Gln Ala Asp Glu Asn Glu Val Pro Gln Val Asp Ile Ser Pro
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Asp Asp Val Val Ala Leu Pro Tyr Ser Ser Gly Thr Thr Gly Leu Pro
180    185    190
Lys Gly Val Met Leu Thr His Lys Gly Leu Ile Thr Ser Val Ala Gln
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Gln Val Asp Gly Asp Asn Pro Asn Leu Tyr Phe His Ser Glu Asp Val
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Gly Ala Pro Leu Gly Lys Glu Leu Glu Asp Thr Val Arg Ala Lys Phe
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Ile Gly Tyr Ile Asp Asp Asp Asp Glu Leu Phe Ile Val Asp Arg Leu		
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Gly Leu Lys Asp Glu Asp Ala Gly Glu Val Pro Val Ala Phe Val Val		
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Ser Lys Gln Val Ile Phe Tyr Lys Arg Ile Lys Arg Val Phe Phe Ile		
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ata tct cgg aag gtc gct gct ggg tta tcc aat ttg ggc atc aag aaa	288
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Gly	Asp	Val	Ile	Met	Thr	Leu	Leu	Gln	Asn	Cys	Pro	Glu	Phe	Val	Phe	
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tcc	ttc	atc	ggg	gct	tcc	atg	att	ggg	gca	gtc	atc	acc	act	gcg	aac	384
Ser	Phe	Ile	Gly	Ala	Ser	Met	Ile	Gly	Ala	Val	Ile	Thr	Thr	Ala	Asn	
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cct	ttc	tac	act	caa	agt	gaa	ata	ttc	aag	caa	ttc	tct	gct	tct	cgt	432
Pro	Phe	Tyr	Thr	Gln	Ser	Glu	Ile	Phe	Lys	Gln	Phe	Ser	Ala	Ser	Arg	
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Ala	Lys	Leu	Ile	Ile	Thr	Gln	Ser	Gln	Tyr	Val	Asn	Lys	Leu	Gly	Asp	
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Ser	Asp	Cys	His	Glu	Asn	Asn	Gln	Lys	Pro	Gly	Glu	Asp	Phe	Ile	Val	
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Val	Glu	Ala	Ser	Glu	Ser	Glu	Met	Pro	Thr	Val	Ser	Ile	Leu	Pro	Asp	
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Asp	Pro	Val	Ala	Leu	Pro	Phe	Ser	Ser	Gly	Thr	Thr	Gly	Leu	Pro	Lys	
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Val	Asp	Gly	Glu	Ile	Pro	Asn	Leu	Tyr	Leu	Lys	Gln	Asp	Asp	Val	Val	
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Leu	Cys	Val	Leu	Pro	Leu	Phe	His	Ile	Phe	Ser	Leu	Asn	Ser	Val	Leu	
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Leu	Cys	Ser	Leu	Arg	Ala	Gly	Ser	Ala	Val	Leu	Leu	Met	Gln	Lys	Phe	
275				280				285								
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Glu	Ile	Gly	Ser	Leu	Leu	Glu	Leu	Ile	Gln	Lys	His	Asn	Val	Ser	Val	
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 305 310 315 320  
 Glu Ala Asn Phe Asp Leu Ser Ser Ile Arg Val Val Leu Ser Gly Ala  
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1172

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